

Mineral Industry Surveys

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SILICON IN SEPTEMBER 2005

Preliminary data for September 2005 indicate that domestic production and net shipments of silicon ferroalloys plus metal, on a gross-weight basis, increased by 10% and 12%, respectively, compared with that in August 2005, according to the U.S. Geological Survey. Stocks decreased by 6% compared with those of August 2005, owing to adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys.

Domestic production and shipments of ferrosilicon and silicon metal during the third quarter of 2005 were each 10% lower than those of the second quarter of 2005. Domestic production and net shipments of ferrosilicon and silicon metal during the first 9 months of 2005 were 3% higher and 1% lower, respectively, compared with the revised amounts during the same period of 2004 [265,000 t (production) and 243,000 t

(shipments)]. All domestic data for ferrosilicon have been combined to avoid disclosing company proprietary data.

Based on a gross-weight comparison of August 2005 export data (table 2) with those of the July 2005, ferrosilicon exports increased by 56%, owing primarily to an increase in the ferrosilicon, more than 55% silicon, trade category. Silicon metal exports increased by 11% over the same period, owing to increases in all trade categories.

Based on a gross-weight comparison of August 2005 import data (table 3) with those of the July 2005, ferrosilicon imports decreased by 52%, owing primarily to decreases in the ferrosilicon, 55% to 80% silicon, other, and "other" ferrosilicon trade categories. Silicon metal imports decreased by 23% primarily because of decreases in the silicon metal, 99.00% to 99.99% silicon, and "other" silicon metal trade categories.

Prices, cents per pound, silicon content

	<u>50% Ferrosilicon¹</u>	<u>75% Ferrosilicon²</u>	<u>Silicon Metal²</u>
September 1	47.00-49.00	41.00-43.00	72.00-73.00
September 8	47.00-49.00	41.00-43.50	72.00-73.00
September 15	47.00-49.00	42.00-44.00	70.00-73.00
September 22	47.00-49.00	42.00-44.00	70.00-73.00
September 29	47.00-49.00	42.00-44.00	70.00-72.00

¹Source: Ryan's Notes, North American transaction price.

²Source: Platts Metals Week, dealer import price.

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2005^{1, 2, 3}

(Metric tons)

Material	Gross production ⁴		Net shipments		Stocks, September 30
	September	Year to date	September	Year to date	
Ferrosilicon, all grades ^{5, 6}	18,000	160,000	14,000	133,000	19,700
Silicon metal, excludes semiconductor grades	10,300	113,000	11,700	107,000	5,980

¹Data are rounded to no more than three significant digits.

²Includes U.S. Geological Survey estimates.

³Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

⁴Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

⁵Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

⁶Includes miscellaneous silicon alloys.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN AUGUST 2005^{1, 2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	920	552	\$805,000	6,370	3,820	\$5,860,000
Colombia	5	4	7,800	22	16	29,600
Costa Rica	--	--	--	1	1	2,570
Hong Kong	5	3	3,930	5	3	3,930
Malaysia	--	--	--	22	16	31,200
Mexico	130	78	148,000	769	463	921,000
Netherlands	--	--	--	97	75	158,000
Total	1,060	637	965,000	7,290	4,400	7,010,000
Other ferrosilicon:						
Australia	--	--	--	5	2	5,940
Canada	167	84	138,000	1,700	848	1,810,000
Colombia	14	6	19,500	54	25	78,000
Costa Rica	--	--	--	9	5	11,600
Germany	--	--	--	22	8	26,400
Indonesia	--	--	--	2	1	3,050
Mexico	24	12	24,900	425	213	483,000
Philippines	2	1	9,090	2	1	9,090
Spain	--	--	--	13	6	14,100
United Kingdom	--	--	--	4	2	3,050
Total	207	103	191,000	2,230	1,110	2,440,000
Total ferrosilicon	1,270	740	1,160,000	9,520	5,510	9,450,000

See footnotes at end of table.

TABLE 2--Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN AUGUST 2005^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
China	80	XX	\$4,230,000	996	XX	\$51,000,000
Finland	10	XX	235,000	132	XX	4,250,000
Germany	191	XX	7,720,000	1,320	XX	54,600,000
Italy	9	XX	573,000	74	XX	5,930,000
Japan	637	XX	45,600,000	4,610	XX	273,000,000
Korea, Republic of	55	XX	3,110,000	594	XX	34,300,000
Malaysia	4	XX	796,000	51	XX	9,330,000
Norway	146	XX	5,370,000	1,020	XX	35,900,000
Taiwan	42	XX	2,040,000	287	XX	14,600,000
United Kingdom	31	XX	1,900,000	253	XX	14,400,000
Other (36 countries)	35	XX	1,930,000	239	XX	13,400,000
Total	1,240	1,240 ^e	73,500,000	9,580	9,580 ^e	511,000,000
99.00% - 99.99% silicon:						
Brazil	79	78	218,000	566	561	1,450,000
China	--	--	--	25	25	74,300
France	12	12	16,700	154	153	391,000
Germany	54	53	151,000	109	108	276,000
India	--	--	--	27	27	75,800
Japan	2	2	3,390	42	41	65,500
Mexico	2	2	2,970	21	21	37,600
Spain	--	--	--	28	28	73,000
Sweden	6	6	8,900	22	22	31,500
United Kingdom	28	28	39,100	86	86	122,000
Other (11 countries)	8	8	13,000	77	76	116,000
Total	191	189	453,000	1,160	1,150	2,720,000
Other silicon:						
Canada	386	375	399,000	1,790	1,740	1,870,000
China	--	--	--	636	618	890,000
Germany	--	--	--	180	174	240,000
Japan	17	17	149,000	340	331	898,000
Korea, Republic of	--	--	--	413	401	545,000
Mexico	7	7	37,400	240	233	722,000
Netherlands	38	37	302,000	222	214	1,790,000
Philippines	--	--	--	82	79	108,000
Russia	--	--	--	224	218	296,000
United Kingdom	--	--	--	51	50	325,000
Other (16 countries)	51	50	167,000	179	174	459,000
Total	499	485	1,050,000	4,350	4,230	8,140,000
Total silicon metal	1,930	1,920	75,000,000	15,100	15,000	521,000,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN AUGUST 2005^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
Argentina	20	12	\$29,500	40	24	\$59,100
China	--	--	--	38	17	53,000
France	--	--	--	144	87	213,000
Germany	--	--	--	10	6 ³	13,300
United Kingdom	--	--	--	9	6	64,300
Total	20	12	29,500	241	140	402,000
55% - 80% silicon, Other:						
Brazil	171	128	160,000	1,040	783	932,000
Canada	1,180	893	998,000	7,780	5,890	7,070,000
China	5,380	4,150	3,280,000	79,400	60,600	53,900,000
France	166	115	298,000	2,590	1,760	4,750,000
Germany	34	24	159,000	307	245 ³	1,510,000
Kazakhstan	--	--	--	103	15 ³	69,400
Norway	6,230	4,660	4,590,000	17,600	13,200	16,200,000
Russia	--	--	--	34,200	25,500	23,400,000
Slovenia	--	--	--	98	67	148,000
Venezuela	1,350	1,010	1,210,000	33,100	25,000	26,100,000
Other (2 countries)	--	--	--	47	34	97,200
Total	14,500	11,000	10,700,000	176,000	133,000	134,000,000
Magnesium ferrosilicon:						
Argentina	199	90	195,000	1,690	772	1,600,000
Brazil	305	137	269,000	1,830	816	1,650,000
Canada	437	204	419,000	3,890	1,800	3,720,000
China	592	266	466,000	4,790	2,230	3,340,000
France	20	9	21,500	69	32	72,200
Germany	20	9	19,600	99	45	117,000
India	31	15	54,300	206	98 ³	300,000
Japan	101	47	75,700	796	371	659,000
Netherlands	948	444	851,000	6,850	3,200	6,140,000
Norway	38	18	42,800	38	18	42,800
Other (Germany)	--	--	--	15	9	34,000
Total	2,690	1,240	2,410,000	20,300	9,390	17,700,000
Other ferrosilicon:						
Brazil	--	--	--	60	31	126,000
Canada	674	235	616,000	6,140	1,750	4,690,000
China	--	--	--	13,900	3,230	4,600,000
France	--	--	--	10	6	24,500
Germany	--	--	--	(4) ³	30	6,990
India	--	--	--	251	149	271,000
Russia	--	--	--	1,520	697	656,000
Ukraine	--	--	--	22	11	18,300
Total	674	235	616,000	21,900	5,900	10,400,000
Total ferrosilicon	17,900	12,500	13,800,000	219,000	149,000	163,000,000

See footnotes at end of table.

TABLE 3--Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN AUGUST 2005^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
China	1	XX	\$16,900	13	XX	\$235,000
Denmark	--	XX	--	3	XX	944,000
Germany	67	XX	5,410,000	612	XX	47,500,000
Italy	26	XX	1,280,000	237	XX	9,710,000
Japan	59	XX	3,220,000	376	XX	28,500,000
Korea, Republic of	6	XX	785,000	99	XX	5,700,000
Norway	--	XX	--	1	XX	120,000
Philippines	--	XX	--	179	XX	253,000
Poland	--	XX	--	10	XX	29,900
Spain	(4)	XX	4,500	5	XX	37,800
Other (5 countries)	1	XX	117,000	5	XX	314,000
Total	161	161 ^e	10,800,000	1,540	1,540 ^e	93,400,000
99.00% - 99.99% silicon:						
Australia	1,170	1,180 ³	1,960,000	6,060	6,040 ³	10,400,000
Brazil	3,920	3,890	5,610,000	34,500	34,300	46,400,000
Canada	1,660	1,650	2,700,000	12,600	12,500	20,300,000
France	--	--	--	1,200	1,190	1,570,000
India	--	--	--	114	113	167,000
Norway	312	310	622,000	5,080	5,050	11,600,000
Philippines	71	71	98,500	1,350	989 ³	2,010,000
South Africa	659	653	1,060,000	23,600	23,400 ³	35,000,000
Sweden	12	(4)	91,300	36	24	255,000
United Kingdom	34	15 ³	127,000	78	49 ³	354,000
Other (China)	--	--	--	(4)	(4)	2,850
Total	7,840	7,770	12,300,000	84,600	83,600	128,000,000
Other silicon:						
Brazil	45	45	65,300	7,270	7,170	10,300,000
Canada	724	698	1,190,000	6,910	6,760	11,800,000
China	--	--	--	2,430	2,390	2,620,000
France	--	--	--	520	513	628,000
Germany	--	--	--	230	221	564,000
Norway	1,000	989	1,570,000	3,560	3,500	5,480,000
South Africa	--	--	--	230	224	274,000
Sweden	--	--	--	230	36	251,000
Ukraine	--	--	--	280	275	410,000
United Kingdom	1	1	6,160	161	158	283,000
Other (4 countries)	17	2	26,700	206	57 ³	281,000
Total	1,790	1,730	2,860,000	22,000	21,300	33,000,000
Total silicon metal	9,790	9,670	26,000,000	108,000	106,000	254,000,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

⁴Less than ½ unit.

Source: U.S. Census Bureau.